Presentation to Chula Vista
City Council

Municipal Energy Utility Feasibility Analysis

MEU Study Team
May 19, 2004

NAVIGANT CONSULTING

Study Approach

- To meet the goals established by the City the MEU Study Team developed or examined the following:
  - Current and future load requirements of the City
  - Resources available to meet City requirements
  - Electricity and natural gas system costs
  - Forecasted future wholesale energy prices
  - Forecasted future San Diego Gas & Electric Company (SDG&E) retail prices
  - Economic and financial viability of multiple alternatives
  - Structural options available to the City
  - Regulatory and legal impacts

Study Methodology

- Began with an identification of what options were available to the City
- Examined regional or local limitations for implementing an MEU
- Used a conservative approach in examining each option (as noted by City's review consultants)
- For each structural option, a detailed legal, technical, and financial assessment was performed that examined all of the following:
  - Customer base
  - Functional Elements
  - Cost-Benefit Analysis
  - Legal/Regulatory Authority
  - Financing Options
  - Implementation Schedule
  - Recommendation

Structural Options Evaluated

- Community Choice Aggregation (CCA)
- Greenfield Development (Greenfield)
- Combined CCA/Greenfield
- Municipal Distribution Utility (MDU)
  - Electric
  - Natural Gas

City Energy Requirements

Year	Number of Customers	Energy Requirement (MWH)	Peak Load (MW)	Electricity Costs ($ Millions)
2004	73,000	764,000	130	$120
2023	94,500	1,340,000	230	$220

Is There Critical Mass to Become an MEU?

Is The City Large Enough to Consider Forming an Electric Utility?

California Electric Utilities *(Source: California Energy Commission 2001 Statistics)*

	Accounts	MWh	% Energy	Customer Ranking
Pacific Gas and Electric Company	4,756,159	79,441,589	34.08%	1
Southern California Edison Company	4,448,024	78,453,624	33.66%	2
Los Angeles Department of Water and Powe	1,405,524	22,375,712	9.60%	3
San Diego Gas and Electric Company	1,242,735	15,212,291	6.53%	4
Sacramento Municipal Utility District	475,410	9,333,938	4.00%	5
City of Anaheim	109,548	2,511,542	1.08%	6
Imperial Irrigation District	102,901	2,711,321	1.16%	7
Modesto Irrigation District	99,550	2,244,939	0.96%	8
City of Riverside	96,102	1,720,653	0.74%	9
City of Glendale	83,489	1,114,569	0.48%	10
City of Chula Vista	78,317	862,186		11
Turlock Irrigation District	76,565	1,445,313	0.62%	12
City of Pasadena	59,354	1,104,676	0.47%	13
City of Burbank	51,406	1,050,244	0.45%	14
Silicon Valley Power	48,083	2,517,729	1.08%	15
Pacificorp	44,565	816,107	0.35%	16
Sierra Pacific Power Company	43,873	505,223	0.22%	17
City of Redding	39,653	671,507	0.29%	18
City of Roseville	39,070	947,855	0.41%	19
City of Alameda	33,140	364,491	0.16%	20
City of Palo Alto	28,200	1,100,596	0.47%	21
City of Lodi	24,618	413,600	0.18%	22
Southern California Water Company	21,603	126,596	0.05%	23
City of Colton	17,679	299,034	0.13%	24
City of Lompoc	14,913	129,614	0.06%	25
City of Azusa	14,773	226,897	0.10%	26
Lassen Municipal Utility District	12,068	120,182	0.05%	27
Truckee-Donner Public Utility District	11,257	122,451	0.05%	28
City of Banning	10,141	129,300	0.06%	29
City of Ukiah	7,360	94,108	0.04%	30
Trinity Public Utility District	6,558	75,471	0.03%	31
Plumas-Sierra Rural Electric Cooperation	6,250	121,820	0.05%	32
City of Healdsburg	5,342	66,936	0.03%	33
City of Needles	4,100	79,344	0.03%	34
Shasta Dam Area Public Utility District	4,082	67,239	0.03%	35
Surprise Valley Electrical Corporation	4,044	101,517	0.04%	36
Anza Electric Cooperative, Inc.	3,567	36,109	0.02%	37
City of Gridley	2,280	28,180	0.01%	38
City of Vernon	2,067	1,128,048	0.48%	39
Merced Irrigation District	881	271,153	0.12%	40
City of Biggs	662	10,706	0.00%	41
Calaveras Public Power Agency	240	26,494	0.01%	42
Central Valley Project	86	2,743,160	1.18%	43
Tuolumne County Public Power Agency	85	25,133	0.01%	44
Valley Electric Association, Inc.	26	6,905	0.00%	45
City of San Francisco	14	897,947	0.39%	46
Boulder City/Parker Davis	n/a	88,130	0.04%	47
City of Escondido	n/a	400	0.00%	48
Total	13,458,047	233,080,393		

A City Municipal Utility Would Be The 11th Largest Utility in California

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Top 20 California Electric Utilities

California Electric Utilities *(Source: California Energy Commission 2001 Statistics)*

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Electricity Supply Strategies

- Study examined two supply options for City: (1) a contract strategy; and (2) a generation ownership strategy
- Study results illustrate both strategies offer benefits to the City; however, significantly more benefit are obtainable from generation ownership
- Chula Vista would enjoy a 17 percent cost advantage vs. SDG&E ownership of generation
  - 100 percent debt financing
  - Tax-exempt financing
  - No profit margin (no need for a return on equity)
  - Exempt from Federal taxes
- Other advantages
  - Reduced reliance on turbulent market
  - Local control of decision making
  - Reliability factors

Study Results - CCA

- City supplies generation services to all customers, except those who opt out
- Little infrastructure required; could initially outsource portfolio operations/power supply but City possesses sufficient scale to perform in-house
- Requires development of implementation plan for submittal to CPUC
- Could be operational by 2006
- Offers benefit of $244 M of term of study period with City owned generation (NPV of $90 M)
- Offers benefit of $86 M with contracts strategy (NPV of $28 M)

CCA Results (Continued)

Benefits

- Rate savings (2 to 10 percent) or contribution to general fund
- Local control over generation costs
- Greater latitude for renewable energy
- Choice for all electric customers (opt-out)
- Little infrastructure needed

Risks

- Regulatory risk - exit fees
- Price risk – hedging electricity/gas costs
- Stranded costs - erosion of customer base
- Credit risk – supplier / customer defaults

Study Results - Greenfield

- City provides generation and distribution services to newly developed areas
- City performs all functions of a municipal utility (power supply, distribution O&M, customer service, billing and metering)
- 4,000 customers with peak demand of 16 MW in six potential development areas, based upon City planning estimates (current general plan)
- Site specific engineering studies and SDG&E interconnection required before proceeding to implementation
- Estimated infrastructure cost of $13.8 M
- Recommend outsourcing if Greenfield pursued exclusively
- Offers benefit of $89 M (NPV of $21 M), concentrated in last 10 years of study period

Greenfield Results (Continued)

Benefits

- Rate savings of 10 percent or contribution to general fund possible in later years
- Local control over generation costs
- Potential for improved reliability
- Economic development options
- No lengthy condemnation process

Risks

- Regulatory risk - exit fees
- Front loaded costs, back loaded benefits
- Price risk – hedging electricity/gas costs
- Credit risk – supplier / customer defaults
- Liabilities inherent in distribution operations

Study Results - MDU

- City supplies generation and distribution services to all customers within city
- City performs all functions of a municipal utility (power supply, distribution O&M, customer service, billing and metering)
- Requires acquisition of SDG&E distribution system and interconnection with SDG&E
- Estimated capital cost of $185 million to implement plus $78 million generation investment needed for project viability
- Offers nominal benefit of $329 M (NPV of $109 million) with generation ownership strategy
- Offers nominal benefit of $16 M with contracts strategy (NPV loss of $12 M without generation)

MDU Results (Continued)

Benefits

- Rate savings of 9 percent or contribution to general fund
- Local control over electricity costs
- Potential for improved reliability
- Economic development options
- Potential for greater renewable energy and energy efficiency
- Creates significant asset value for City

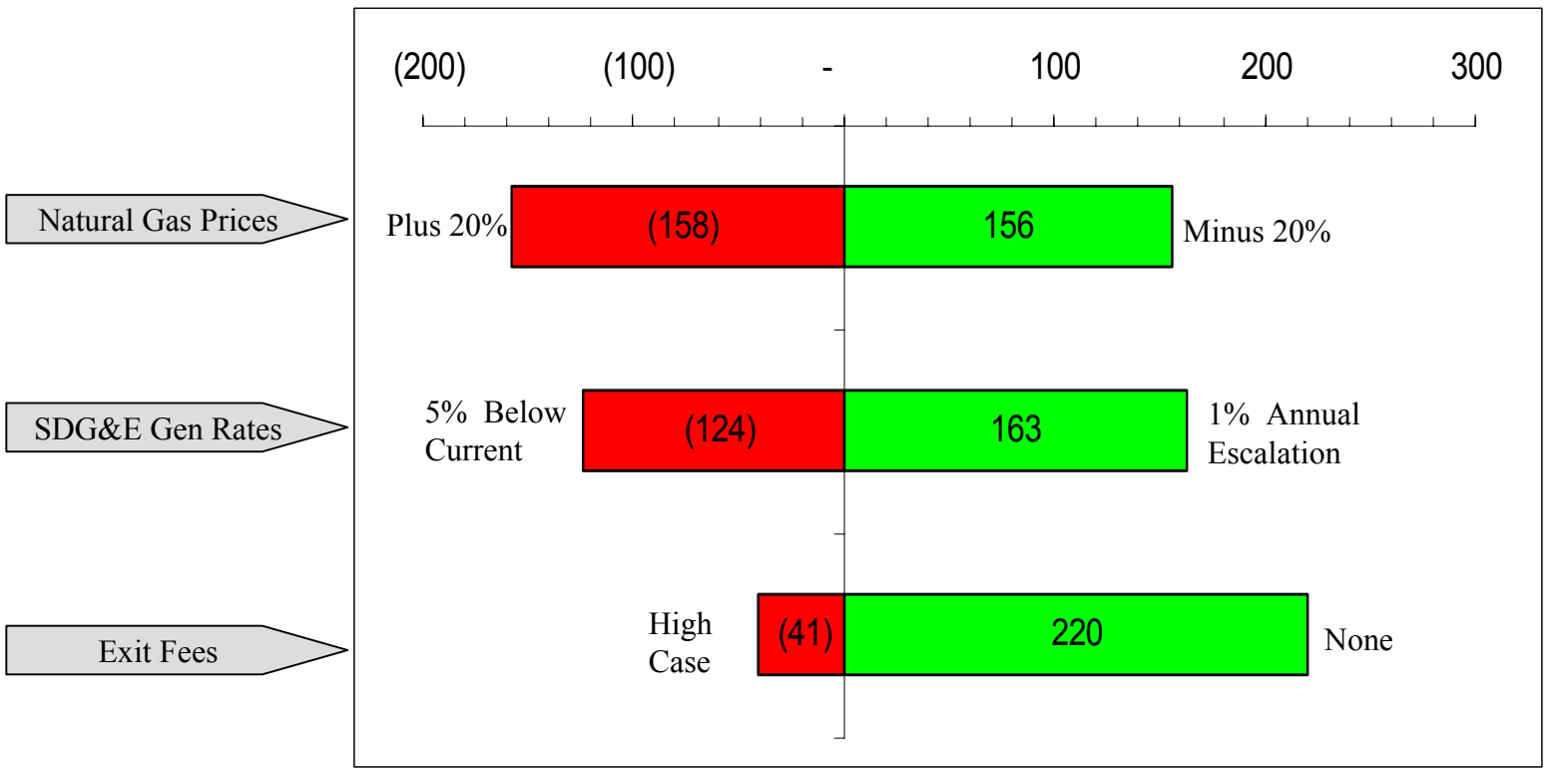
Risks

- Litigation risk – lengthy condemnation process, uncertain acquisition cost
- Political risk – SDG&E opposition
- Regulatory Risk – Exit Fees
- Price risk – hedging electricity/gas costs
- Credit risk – supplier / customer defaults
- Liabilities inherent in distribution operations

City of Chula Vista Base Case MEU Savings (Costs) Estimates

MEU Option	Supply Strategy	Nominal Savings ($ Millions)	NPV Savings ($ Millions)	NPV Savings (%)	Nominal Annual Savings ($ Millions)
CCA/Greenfield	Generation	351	122	10%	19.5
CCA/Greenfield	Contracts	170	52	4%	9.4
MDU	Generation	329	109	9%	18.3
MDU	Contracts	16	(12)	(1%)	.9
CCA	Generation	244	90	8%	13.6
CCA	Contracts	86	28	2%	4.8
Greenfield	Contracts	89	21	10%	4.9

CCA/Greenfield Option Sensitivities
Nominal Impact ($Millions)



Range of Savings
$193 to $507
5% to 14%
$227 to $514
6% to 15%
$310 to $571
9% to 16%

Cost savings are achievable under applicable sensitivity scenarios.

Conclusions and Recommendations

- City should combine the CCA and Greenfield projects for administration by the City's MEU
- CCA/Greenfield should offer comparable benefits to full MDU, with less upfront cost and risk
- City should pursue a CCA program and participate in the ongoing CPUC process
- City should develop a generation ownership strategy
- City should begin development and implementation of City distribution system in Greenfield areas
- City should delay consideration of MDU for several years pending experience with other options
- Barring any substantial changes in SDG&E rates or in the natural gas markets, City should not pursue retail sales of natural gas. Reevaluate, if MDU is established.
- City's selected peer reviewer's found result to be sound, with no fatal flaws, but believed certain assumptions and approaches to be too conservative